

heating the fiber in a static deposition geometry in a manner such that the exposed external circumferential surface of the fiber remains exposed to an extent sufficient to form the continuous coating thereon, the exposed external circumferential surface of the fiber being heated to substantially the same temperature, the temperature being sufficient for decomposition of a gaseous precursor material;

independently heating a source material to provide said gaseous precursor material; and

directing said gaseous precursor material to said static fiber, whereby the substantially continuous circumferential coating is formed from decomposition of the gaseous precursor material on the exposed circumferential surface of the fiber.

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cont'd* 18. (Twice Amended) A method in accordance with claim 8, wherein the optical fiber is separated from a heating surface for heating the fiber by a substantially constant sized gap large enough to allow the vapor to envelop the surface of the fiber but small enough to allow the surface of the fiber to be heated to the decomposition temperature by the heating surface.